

markings in the basal and submarginal areas or be unicolorous, and as the division between them is not a sharp one I think one name will suffice.

Ab. **plumbea**, ab. nov.

FOREWING.—Unicolorous dark leaden grey without any pale markings, but with the usual dark markings visible; fringes considerably darker than usual.

HINDWING.—Basal area, nearly as dark as the marginal area. Thorax dark leaden grey with no pale scales, but with the usual rust-coloured scales present. Spectacle mark present. Abdomen dark grey with the hairs at the base leaden grey instead of pale. Some specimens show a variable but restricted amount of pale marking in the basal and submarginal areas and in these the fringes, base of the abdomen, and basal area of the hindwing are not quite as dark as in the unicolorous ones.

Type, ♂, Sunderland, bred 1930, Corder; allotype, ♀, same data. Paratypes, 14 ♂♂, 4 ♀♀, Sunderland, bred 1930, Corder; 1 ♂, Burnley, 1907, W. G. Clutton. Of these 4 ♂♂ and 3 ♀♀ from Sunderland and the ♂ from Burnley are unicolorous.

This melanic form is considerably darker than the unicolorous Hungarian specimens in the Tring Museum, which agree closely with Esper's var. *asclepiadis* (*asclepiadea*), and I have seen no continental specimens as melanic as ab. *plumbea*.

NOTES ON THE HELOMYZIDAE [DIPTERA].

By L. PARMENTER, F.R.E.S.

Mr Collin's excellent paper on the British Species of *Helomyzidae* has enabled dipterists to revise their collections of this family. Mr Andrews' notes proved that their life-history is still to be elucidated and that several species can be found in the neighbourhood of London in Kent.

I find that Surrey is inhabited by many species and as Mr Collin has rarely mentioned dates I have ventured to list my own specimens. Although I have not paid particular attention to the family when collecting perhaps my notes may encourage others to add to our knowledge of the distribution, ecology and habits of members of the family.

The species of *Helomyza* seem to be definitely attracted to fungi, noted by Andrews, Seguy, etc. Only this autumn I found *Helomyza affinis*, *bicolor*, *variegata* and *notata*, var. *hilaris*, all attracted to a pile of fungi within 15 minutes after it had been discarded, just a few feet from the edge of the woodland, by members of the British Mycological Society during a fungus foray at Bookham Common. Scent must be the attraction and it would be interesting to know to what distance the odour is effective on the various species. Certainly some species of fungi are more attractive than others. A comparison might be made between the *Helomyzidae* and the other fungus haunting Diptera such as the *Mycetophilidae*, *Calliphoridae*, *Muscidae* and *Sphaecroceridae* on their response to the various species of fungi.

On 7th November 1937 on a fungus identified by my friend Mr J. E. Lousley at Limpsfield Common as *Clithocybe maxima*, Quel., I found a male *Allophyla atricornis* with males of *Helomyza bicolor*, *Stratioborborus roserii*, Rond., and *S. finetarius*, Mg. On the same day on another part of the common on a Stinkhorn fungus, *Phallus impudicus*, Pers., there were gathered males of *Helomyza notata*, var. *hilaris*, *H. humilis*, *H. affinis*, *Dryomyza flaveola*, F., var. *zawadskii*, Schum., and a female *Phaonia variegata*, Mg. Since then I have noted at other times males of several species of *Helomyza* gathering together on fungi. Although I have no proof, yet it appears possible that this congregation of males is not solely for feeding purposes, but due to mating activities. Male dung flies foregather on cow-pats awaiting females with whom to mate and I suggest that male *Helomyza* may congregate on fungi for the same purpose. That more than one species should occur together so frequently makes one wonder how the species refrain from inter-breeding; how the female of each species is recognized—by vision or by scent. It must be borne in mind that flies have poor sight compared with human beings and that mating generally takes place so quickly that immediate recognition is implied. There seems to be plenty of scope for study for those willing to watch flies.

- Helomyza variegata*, Lw. 15th May-8th November from Cornwall, Herts. and Surrey.
- H. notata*, Mg., var. *hilaris*, Zett. 25th May-30th July, 29th September-10th November from Cornwall and many localities in Surrey.
- H. humilis*, Mg. From Studland Heath, Dorset, and Bookham, Caterham, and Limpsfield, Surrey, in June, September, to 7th November.
- H. affinis*, Mg. 22nd May-29th September from Cornwall and several localities in Surrey.
- H. flava*, Mg. A ♂, Limpsfield Common, 7th July 1940, and a ♀, Ashtead Common, Surrey, 9th October 1946.
- H. pallida*, Flin. Under trees, 14th June-7th July at Limpsfield Common and Oxshott, Surrey.
- H. flavifrons*, Zett. 2 ♂♂, Wooler, Northumberland, 9th April 1943.
- H. ustulata*, Mg. A ♀ in the "Nut Grove," a wood on the cliff at Carbis Bay, Cornwall, 8th August 1941.
- H. bicolor*, Zett. June, 29th September-7th November from New Forest, Hants., and several localities in Surrey.
- H. fuscicornis*, Zett. 3 ♂♂, Limpsfield Common, 25th June 1939, and a ♀, Oxshott, Surrey, 14th June 1941.
- H. dunicola*, Collin. A ♂, Byfleet, Surrey, 9th July 1941.
- Allophyla atricornis*, Mg. June and 7th November at Limpsfield Common, Surrey.
- Heteromyza rotundicornis*, Zett. ♂♂ found flying to and fro under the edge of the canopy of a conifer thicket in Worth Forest, Sussex, 11th April 1937. ♀♀ on gorse, Limpsfield Common, Surrey, 5th December 1937, and Wooler, Northumberland, 12th May 1943.
- Tephrochlamys tarsalis*, Zett. Taken on a window, Thornton Heath, Surrey, 9th December 1940, and on a window at Fetcham, Surrey, by Mr H. J. Burkill in October 1940 and 1941.

- T. flavipes*, Zett. A ♀ bred by Mr G. Waller from the nest of a dormouse from Keston, Kent, emerged 14th May 1940.
- T. rufiventris*, Mg. February-June and December from Essex, Norfolk, Kent, Northumberland and Surrey. On 14th February 1937 some were taken on jetsam at the high tide line on the sea wall at High Halstow, Kent. In early spring the species was found on the window of the huts of several camps during my Army service.
- Tephrochlaena oraria*, Collin. A ♀, Studland Heath, Dorset, 6th June 1938.
- Neoleria inscripta*, Mg. June, Norfolk. On two occasions I have found the species on a dead rabbit; Keston Common, Kent, 17th May 1936, with *Lucilia caesar*, L., *L. sericata*, Mg., *Hydrotaea dentipes*, F., and *Piophilina nigriceps*, Mg., and at Bookham Common, Surrey, 14th May 1942, with *Lucilia caesar*, L., *L. sericata*, Mg., *Hydrotaea dentipes*, F., *Pseudomorellia albolineata*, Flin., and *Calliphora erythrocephala*, Mg.
- Oecothea fenestralis*, Flin. 23rd March-28th April, Northumberland and Surrey.
- O. praecox*, Lw. 2nd-12th May 1943, Wooler, Northumberland. This species followed after *fenestralis* had disappeared from my hut window [28th April].
- Eccoptomera longiseta*, Mg. A ♀, Beddington sewage farm, Surrey, 2nd June 1935.
- Leria serrata*, L. March-June from Hants, Northumberland and Surrey.
- L. modesta*, Mg., subsp. *czernyi*, Collart. March-May, from Northumberland and Sussex.

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- 94 Fairlands Avenue, Thornton Heath, Surrey, 15th December 1946.

COLLECTING NOTE.

HONEY-DEW AND LARVAE.—Some breeders of Lepidoptera hold that honey-dew is harmful, indeed often fatal, to the larvae of certain species. In a letter to me a year or so ago Fleet-Paymaster T. Bainbrigge Fletcher, R.N., suggested that in all probability the harmful effect of honey-dew was owing not to the aphidal secretion itself but to the moulds which are known to grow in this medium. A book of great interest to the entomologist, which deals with this subject, has just been published and amply bears out the above suggestion. It is *Insect Microbiology* by Edward A. Steinhaus, Assistant Professor of Bacteriology at the University of California (published by the Comstock Publishing Com-